IN THE CLAIMS

Add the following new claims:

16. The optical device of claim 1, which is in the form of a laser amplifier.

17. The optical device of claim 9, which is in the form of a laser amplifier.

18. The optical device of claim 1, wherein the glass substrate is doped with a laser species selected from the group consisting of the rare-earth elements Er, Yb, Nd, Ho, Tm, Sm, Tb, Dy, Pr and combinations thereof.

19. An optical device prepared by the process of claim 9, wherein at least one active region contains a least one rare earth element.

20. The method of claim 14, wherein the change in wavelength per degree centigrade temperature change is less than 0.02 nm/°C.

21. An optical device of claim 9, which is in the form of a single-frequency 1.32-1.4 um laser having a Nd-doped phosphate glass active region fused to La-doped glass passive region, the passive region having a DBR grating with a period which reflects a single wavelength in the range of 1.32–1.4 um.

22. The optical device of claim 1, wherein the device is in the form of a multi-wavelength laser source which further comprises at least one pump light source coupled through a suitable launch-end mirror by butting against the end of a waveguide.

23. The optical device of claim 22, which comprises eight pump laser diodes as pump light sources, eight corresponding sets of waveguides and eight optic fibers held by an alignment block such that each respective fiber is optically coupled to the emitting end of the top or first waveguide of each set of waveguides.

24. The optical device of claim 1, in the form of a multi-wavelength laser source having multiple sets of waveguides, a corresponding pump light source for each set of waveguides and with output fibers connected to the middle waveguide of each set of waveguides.

25. The optical device of claim 24, wherein each pump light source is coupled through a lens to concentrate the light from the pump light source into a waveguide.

26. The optical device of claim 1, in the form of a single-wavelength laser source having multiple waveguides and a single pump light source capable of being coupled to any of the waveguides such that at least two of the waveguides provide outputs of differing wavelength when pumped.

27. The optical device of claim 1, in the form of a laser which comprises redundant waveguides all operating at a single wavelength and further comprises at least one DBR mirror as a reflecting element in association with at least one waveguide on the substrate.

28. The optical device of claim 1, in the form of a laser comprising at least two waveguides and at least two corresponding DBR mirrors each being tuned to a unique wavelength.

29. The optical device of claim 1, in the form of a laser wherein the device includes a hermetic package, is pumped by an optical fiber, and is coupled to an output optical fiber such that it is capable of taking a noisy pump light input and outputting a clean laser output light at a different frequency.

30. The optical device of claim 1, in the form of an integrated device that further comprises a pump laser diode, a light-sensing diode, a thermistor and electrical connections between and to these components.

31. The optical device of claim 1, in the form of a laser having direct butt coupling of a

pump laser diode to a waveguide.

32. The optical device of claim 1, in the form of a laser having lensed coupling of a pump laser diode to a waveguide.

33. The optical device of claim 9, in the form of a laser wherein the device includes a hermetic package, is pumped by an optical fiber, and is coupled to an output optical fiber such that it is capable of taking a noisy pump light input and outputting a clean laser output light at a different frequency.

34. The optical device of claim 9, in the form of an integrated device that further comprises a pump laser diode, a light-sensing diode, a thermistor and electrical connections between and to these components.

35. The optical device of claim 9, in the form of a laser having direct butt coupling of a pump laser diode to a waveguide.

36. The optical device of claim 9, in the form of a laser having lensed coupling of a pump laser diode to a waveguide.